THE FUTURE OF THE UNIVERSITIES: HOW TO MAKE READY THE UNIVERSITIES THROUGH BIG DATA MINING AND MANAGEMENT

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Abstract

The future of the universities is critical since they are dealing with different challenges: the quality of teaching, the mobility of the international students and researchers, the global ranking systems, the digitization process of the process, the university-industry partnership, the technology transfer, the licensing process of the patents, the development and management of the innovation and technology, and the limited budgets. Hence, the strategic planning is needed to make the right decisions taking into consideration the priorities and the most critical investments. In the last decade, some of the best universities have been used different methodologies in their decision making process in order to accelerate the quality of higher education, including the reputation by using big data mining and management.

In this comparative research, the different experts related to the future of the universities have been critically involved in taking into account three universities in Turkey, two universities in the US, and the two experts who are dealing with different universities in terms of consulting. The well-organized interviews have been developed in the universities. In order to have better information, the open-ended questionnaires are sent to the participants (n=29). All the collected data are analyzed by using Atlas.ti 7 in order to understand how the participants’ decision-making processes work by using the big data mining and management.

The analyzed data evidently show that the large number of the participants wants to use the big data mining and management in order to improve distinctly excellence in teaching, learning, research, university-industry partnership, and licensing of the patents. According to the participants (87%), the universities’ ecosystems and environment are changing dramatically and disruptively, they need better information to improve the quality, while they expect to increase the return of their time and investments. The participants of the American universities clearly define that they use big data mining and management in order to see and evaluate the students’ experiences and satisfaction. The participants in the Turkish universities, however, clearly introduce that they are not ready to use big data mining and management. Even though they are still using the systems of the previous decades, they are ready to use the least innovative systems to become a member of the global ranking systems.

According to their perception, the quality of the Turkish universities are good enough to deal with different aspects of the research and development, but the industries are not ready to collaborate properly with the universities. Additionally, as the participants have clearly underlined that the most of academics’ time is used in the administration rather than research. Therefore, they need better reorganization of the academics in order to increase the quality of research and development and the university-industry partnership. Additionally, according to the most of the participants, including the experts, the big data mining and management is necessary to have better valuable insight and to become more dynamic in how the university administration would take the priorities in order to accelerate the universities’ position in the global ranking systems. So, the big data mining and management is absolutely needed in order to make the right decisions and to embrace the challenges of the future.

Keywords: Future of the Universities, Big Data Mining, Big Data Management.